Applicant: Shunpei Yamazaki, et al. Attorney's Docket No.: 07977-208001 / US3511

Serial No.: 08/994,038

Filed: December 18, 1997

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REMARKS

Claims 2, 6-12 and 14-26 are pending in the application, with claims 2, 7, 16, 19 and 24-26 being independent. Claims 7-10 and 15 were previously withdrawn. By this amendment, claim 2 has been amended and claim 5 has been cancelled.

Claims 16, 17, 19-22, 25 and 26 have been rejected as being anticipated by Mizutani. Each of independent claims 16, 19, and 25 recites, among other elements, a plurality of electrodes formed on the insulating film such that MOS capacitors are formed between the electrodes and the crystalline semiconductor film with the insulating film therebetween. Applicant requests reconsideration and withdrawal of the rejection of claim 16 because Mizutani does not describe or suggest the recited plurality of electrodes. The action indicates that Mizutani's element 7 constitutes the recited MOS capacitors. However, as discussed in the text and illustrated, for example, by Fig. 2 of Mizutani, element 7 is a photodiode that is formed by creating alternating P+-areas 4 and n-type areas 3. While Mizutani illustrates (in Figs. 3-5) a single capacitance 9 that is used for charge accumulation, that capacitance includes only a single gate 16. Mizutani nowhere describes or suggests multiple electrodes arranged in the manner recited in the claims. Accordingly, for at least this reason, applicant requests reconsideration and withdrawal of this rejection.

Claims 2, 6, 11, 12, 14 and 23 have been rejected as being obvious over Mizutani in view of Funakoshi. As amended, claim 2 recites, among other elements, that at least one of vertical and horizontal charge coupled devices is arranged such that a charge transfer direction of the at least one of the vertical and horizontal charge coupled devices is coincident with the crystal growth direction of the crystalline semiconductor film. Applicant requests reconsideration and withdrawal of the rejection of claim 2 and its dependent claims 6, 11, 12 and 14 because neither Mizutani, Funakoshi, nor any combination of the two describes or suggests arranging a charge coupled device and a crystalline semiconductor film in the manner recited in claim 2.

With respect to claim 23, which depends from claim 19, applicant requests reconsideration and withdrawal of the rejection because Funakoshi does not remedy the failure of Mizutani to describe or suggest the subject matter of claim 19.

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The Examiner has objected to claims 16 and 19 due to the references to a "plurality of crystals" and a "single crystal". Applicant respectfully submits that these references are consistent. In particular, each of claims 16 and 19 recites that the crystalline semiconductor film includes a plurality of crystals, and has a crystalline structure that is continuous so that the crystal structure is <u>regarded</u> as a single crystal <u>for the charge</u>. Thus, the reference to a single crystal is with respect to the operational benefit that results from the recited crystal structure arrangement.

For the reasons discussed above, applicant submits that all claims are in condition for allowance.

Enclosed is a \$420 check for the Petition for Extension of Time fee. Please apply any other charges or credits to deposit account 06-1050.

Respectfully submitted,

Date: October 14, 2003

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